

REMARKS

By this Amendment, claims 1, 2, 5, 7, 8, 11, 13, 18 and 23 are amended, and claim 6 is canceled without prejudice to or disclaimer of the subject matter contained therein.

Accordingly, claims 1-5 and 7-27 are pending in this application. No new matter is added.

Claim 5 is amended to include the feature of claim 6. Claim 7 is merely amended to Correct a minor informality.

The Applicant thanks Examiner Johnson for the courtesies extended to Applicant's representatives during the August 14, 2003 personal interview. The points discussed are incorporated into the remarks below and constitute the Applicant's record of the interview.

For the following reasons, Applicant submits that this application is in condition for allowance. Reconsideration is respectfully requested.

I. FORMAL MATTERS

Claims 7-10 are objected to because of minor informalities. Claim 7 is amended to obviate the objection.

II. REPLY TO REJECTIONS

Claims 1-10, 13 and 16-22 are rejected under 35 U.S.C. §102(e) over U.S. Patent No. 5,974,179 to Caklovic. The rejection is moot with respect to canceled claim 6 and is traversed with respect to the remaining claims.

It is respectfully submitted that Caklovic fails to disclose reformatting the image by interleaving only corresponding pixels of each of the N raster lines, as recited in claims 1 and 18, or a binary data reformatter that reformats raster image data of the original image by interleaving only corresponding pixels of the original image, as recited in claim 7, or reformatting binary image data into a reformatted image data by interleaving only corresponding pixels of N selected raster lines, as recited in claim 13, or a method for decompressing compressed image data to form a restored image, comprising distributing each

bit of the at least one byte to corresponding pixels in N raster lines of the restored image, as recited in claim 5. That is, Caklovic fails to disclose working with only corresponding pixels as recited in the claims.

As described in the specification of the application, an original image having a plurality of raster lines extending in a first direction, where each of the raster lines has a plurality of pixels extending in a second direction different from the first direction, is compressed. As recited in the claims, the image is reformatted by interleaving only corresponding pixels of each of the N raster lines.

In other words, a first reformatted interleaved data groups only first pixels in each selected raster line, a second reformatted interleaved data groups only second pixels in each selected raster line and so on. Notice, no two pixels are selected from a single selected raster line to form a reformatted group.

Caklovic, on the other hand, chooses more than one pixel from each selected raster line. Caklovic specifically exploits redundancies in both the vertical and horizontal directions in order to use a dictionary based compression technique where a previously encountered bit pattern is identified by using a dictionary code that identifies that particular bit pattern rather than the bit pattern itself. Therefore, by identifying redundancies in the bit pattern extending in both directions, Caklovic is able to condense the information into smaller bits. In order to maximize the occurrence of redundancies, Caklovic must extend in both the vertical and horizontal directions (col. 1, lines 30-40, lines 49-57).

In order to accomplish maximizing the redundancies, Caklovic discloses rearranging the memory image of a binary image such that the pixels in two-dimensional adjoining picture areas, rather than consecutive pixels on an image line, are sequentially read (col. 4,

lines 29-34, Fig. 3). This necessarily requires Caklovic to choose more than two pixels from each raster line.

For example, Caklovic rearranges the image data represented in Fig. 1 to the image data represented in Fig. 2. Furthermore, the data represented in Fig. 7A is rearranged into the data represented in Fig. 7B. In both rearrangements of Caklovic, data extending in a horizontal direction is rearranged to extend in both a horizontal and a vertical direction so that the redundancies in both directions are utilized. In the process, more than one pixel from each raster line is chosen.

Therefore, Caklovic fails to reformat by interleaving only corresponding pixels, as recited in independent claims 1, 7, 13 and 18, or distributing each bit of the at least one byte to corresponding pixels in N raster lines of the restored image as recited in independent claim 5. Therefore, claims 1, 5, 7, 13 and 18 are patentable over Caklovic. Claims 2-4, which depend from claim 1, claims 8-10, which depend from claim 7, claims 16 and 17, which depend from claim 13 and claims 19-22, which depend from claim 18, are likewise patentable over Caklovic for the reasons stated above, as well as for the additional features they recite. Withdrawal of the rejection of claims 1-10, 13 and 16-22 is respectfully requested.

Claims 11-12, 14-15 and 23-27 are rejected under 35 U.S.C. §103(a) over Caklovic. The rejection is respectfully traversed.

Applicant respectfully submits Caklovic fails to disclose a decompressor that decompresses the compressed interleave data that was reformatted by interleaving only corresponding pixels of the data, as recited in claim 11. Further, Caklovic fails to disclose a binary data reformatter that reformats raster image data of the original image by interleaving only corresponding pixels of the original image, as recited in claim 23.

As discussed above, Caklovic fails to disclose interleaving only corresponding pixels.
Therefore, claims 11 and 23 are patentable over Caklovic.

Claim 12, which depends from claim 11, and claims 24-27, which depend from claim 23, are also patentable over Caklovic for the reasons stated above, as well as for the additional features they recite.

Further, claims 14 and 15 are also patentable at least in view of the patentability of claim 13 from which they depend, as well as for the additional features they recite.

III. CONCLUSION

For the reasons stated above, Applicant submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-5 and 7-27 is respectfully requested.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,



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Date: September 5, 2003

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